

Tumor-Immune cells competition under the action of immunoboosting
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How immunotherapies affects the evolutionary dynamics of cancer cells? Can we slow down cancer evolution by using immune boosters? Bearing these questions in mind, we present a mathematical model of cancer-immune competition under immunotherapies. The model consists of a system of structured equations for the dynamics of cancer cells and activated T-cells. Numerical results suggest that the selection of proper infusion schedules may play a key role in the success of anti-cancer therapies. In particular, we highlight how cancer evolution can be effectively slowed down by immunotherapeutic protocols relying on successive infusions of agents that boost the proliferation of activated T-cells and agents that enhance immune memory.